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WHAT IS CLAIMED IS:

1. A magnetic head having a magnetoresistive film comprising an anti-ferromagnetic layer, a ferromagnetic -pinned layer, a non-magnetic intermediate layer, a soft magnetic free layer and an oxide layer of metal selected from Ta, Nb, Ti, Hf, W or an alloy thereof laminated in this order on a substrate.

2. A magnetic head as defined in claim 1, wherein the anti-ferromagnetic layer, the ferromagnetic pinned layer, the non-magnetic intermediate layer, and a non-magnetic and conductive film between the soft magnetic free layer and the oxide layer are laminated in this order on a substrate.

3. A magnetic head as defined in claim 1, wherein the thickness of the metal oxide layer is 1.0 nm or less.

4. A magnetic head as defined in claim 1, wherein the interlayer coupling field showing the magnitude of the ferromagnetic coupling between the ferromagnetic pinned layer and the soft magnetic free layer is substantially zero.

5. A magnetic head as defined in claim 2, wherein the thickness of the metal oxide layer is 1.0 nm or less.

6. A magnetic head as defined in claim 5, wherein the interlayer coupling field showing the magnitude of the ferromagnetic coupling between the ferromagnetic pinned layer and the soft magnetic free layer is substantially zero.

7. A magnetic head as defined in claim 4, wherein the thickness of the metal oxide layer is 1.0 nm or less.

8. A magnetic recording apparatus including a magnetic recording medium for recording information, a magnetic head having a magnetoresistive film comprising an anti-ferromagnetic layer, a ferromagnetic pinned layer, a non-magnetic intermediate layer, a soft magnetic free layer, a non-magnetic and conductive film, and an oxide layer of metal selected from Ta, Nb, Ti, Hf, W or an alloy thereof laminated in this order on a substrate, a head slider for holding the magnetic head, an actuator for guiding the head slider to a predetermined recording position of the recording position on the recording medium, a spindle motor rotating the recording medium and a signal processing system for processing information read out of the magnetic recording medium.